



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: MILLS, Diane G. et al.

Group Art Unit: 2634

Serial No.

10/827,462

Examiner:

Filed:

04/19/2004

Atty. Dkt. No: 20040025-CIP

For: MULTIUSER DETECTION AIDED MULTIPLE ACCESS DIFFERENTIAL M-ARY

**CODING APPLICATIONS** 

To: Mail Stop Amendment

Fm:

24222

PO Box 1450

Alexandria, VA 22313-1450

Commissioner for Patents

CERTIFICATE OF MAILING 37 CFR 1.8: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as FIRST CLASS MAIL addressed to: Mail\_Stop Amendment, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450

Date: 7/20/04

Dawn M. Case

Commissioner:

### TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Transmitted herewith is the Applicant's Information Disclosure Statement, 2 sheets form PTO/SB/08A and/or PTO/SB/08B, and 7 references and other information. Pursuant to 37 CFR 1.98 (a)(2)(i) applicant has not transmitted herewith copies of cited U.S. Patents and U.S. patent application publications as the above application was filed after June 30, 2003. Please enter in the above application and communicate in all related matters with the undersigned.

DEPOSIT ACCOUNT 190130 AUTHORIZATION – All necessary fees are intended to be included, however the Office is hereby authorized to charge any deficiency or credit any overpayment in the fees to the above deposit account, owned by BAE SYSTEMS Information and Electronic Systems Integration Inc. an authorized signator for which is Kevin M. Perkins, V.P. & Company Counsel, and for whom the undersigned are authorized agents.

Respectfully submitte

Cus. No. 24222 Maine & Asmus

PO Box 3445

Nashua, NH 03061-3445

Tel. No. (603) 886-6100, Fax. No. (603) 886-4796

Info@maineandasmus.com

1 4 7 1 9 1 9 1

Scott J. Asmus, Reg. No. 42,269 Neil F. Maloney, Reg. No. 42,833

Andrew P. Cernota, Reg. No. 52,711 Attorneys/Agents for Applicant

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

oplication of: MILLS, Diane G. et al.

Group Art Unit: 2634

10/827,462

Examiner:

Filed:

04/19/2004

Atty. Dkt. No: 20040025-CIP

For:

MULTIUSER DETECTION AIDED MULTIPLE ACCESS DIFFERENTIAL M-ARY

CODING APPLICATIONS

To:

Mail Stop Amendment

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

24222

CERTIFICATE OF MAILING 37 CFR 1.8: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as FIRST CLASS MAIL addressed to: Mail Stop Amendment, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450

Fm:

Date:

Dawn M. Case

Commissioner:

# INFORMATION DISCLOSURE STATEMENT

Applicants submit this statement and the attached \_2\_ sheet(s) of form PTO/SB/08A and/or PTO/SB/08B and 7 references and other information in accordance to the duty of disclosure under 37 C.F.R. §§1.56,1.97, and 1.98, and requests consideration hereof. Pursuant to 37 CFR 1.98 (a)(2)(i) applicant has not transmitted herewith copies of cited U.S. Patents and U.S. patent application publications as the above application was filed after June 30, 2003.

Compliance with 37 C.F.R. §1.97: This Information Disclosure Statement is filed within three (3) months of the filing date of a National Application or before the mailing date of a first office action on the merits. No fee or certification is required.

Information Cited: The Applicants hereby make of record in the above-identified application, the information listed on the attached form PTO/SB/08A and/or PTO/SB/08B. The order of presentation of the references should not be construed as an indication of the importance of the reference. As all the references listed on attached Form PTO/SB/08A and/or PTO/SB/08B are in English, no commentary is required.

Remarks: A copy of each reference, together with a listing on Form PTO/SB/08A and/or PTO/SB/08B, is submitted herewith. Applicants respectfully request that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;

- 2. The enclosed form PTO/SB/08A and/or PTO/SB/08B be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application; and
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined in 37 C.F.R. §102.

Notwithstanding any statement by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Cus. No. 24222 Maine & Asmus

PO Box 3445

Nashua, NH 03061-3445

Tel. No. (603) 886-6100, Fax. No. (603) 886-4796

Info@maineandasmus.com

Respectfully submitted

Scott J. Asmus, Reg. No. 42,269

Neil F. Maloney, Reg. No. 42,833

Andrew P. Cernota, Reg. No. 52,711 Attorneys/Agents for Applicant

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paper or Charletter 1995, no persons are required to res

Substitute for form 1449/PTO

Sheet 1

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known			
Application Number	10/827,462		
Filing Date	04/19/2004		
First Named Inventor	Mills, Diane G. et al.		
Art Unit	2634		
Examiner Name			
Attorney Docket Number	20040025 CID		

			U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number-Kind Code <sup>2 (f known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		<sup>US-</sup> 5,483,550	01-09-1996	Hulbert	
		<sup>US-</sup> 5,193,102	03-09-1993	Meidan et al.	
		US-			
	<u> </u>	US-			
	<b> </b>	US-			
		US-			
	<del> </del>	US-			***
		US-			
		US-			
,	<u> </u>	US-			
		US-			
	1	US-		· · · · · · · · · · · · · · · · · · ·	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	,	Or Relevant Figures Appear	T <sup>6</sup>

Examiner Date	
Signature Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND** TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperbork Reduction Asset 1995, no persons are Substitute for form 1449/PTO	e required to respond to a collection	of information unless it contains a valid OMB control number.  Complete if Known
Substitute to form 1443/170	Application Number	10/827,462
INFORMATION DISCLOSURE	Filing Date	04/19/2004
STATEMENT BY APPLICANT	First Named Inventor	Mills, Diane G. et al.
(Use as many sheets as necessary)	Art Unit	2634
(ose as many sheets as necessary)	Examiner Name	
Sheet 2 of 2	Attorney Docket Number	20040025-CIP

	·	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		LEE, Paul, et al., "Capacity Enhanced for Correlated Frequency Hopping System", ATIRP, 1997, pp. 1-6, U.S. Army Research Laboratory.	
		LEE, Paul K., et al., "Spectrum Efficient HF System for Mobile Long Haul Communications", ATIRP, pp. 1-5, U.S. Army Research Laboratory.	
		ROBERTSON, Patrick, et al., "A Comparison of Optimal and Sub-Optimal MAP Decoding Algorithms Operating in the Log Domain", IEEE, 1995, pp. 1009-1013.	
		HAGENAUER, Joachim, et al. "A Viterbi Algorithm with Soft-Decision Outputs and its Applications", IEEE, 1989, pp. 1680-1686.	
		POTTIE, Gregory J., et al. "A Comparison of Reduced Complexity Decoding Algorithms for Trellis Codes", IEEE Journal on Selected Areas of Communications, Dec.1989, pp. 1369-1380, vol. 7 no. 9.	
		AULIN, Tor, et al. "Trellis Coded Multiple Access (TCMA)", IEEE, 1999, pp. 1177-1181.	
		PCT International Search Report dated Dec. 12, 2003 of International Application No. PCT/US03/24920 filed Aug. 7, 2003.	

Examiner	Date	;
Signature	Con	sidered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.